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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/532,588	07/15/2005	Stuart Charles Wray	038665.56184US	4791

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CROWELL & MORING LLP
INTELLECTUAL PROPERTY GROUP
P.O. BOX 14300
WASHINGTON, DC 20044-4300

EXAMINER	
THOMPSON, JR, OTIS L	

ART UNIT	PAPER NUMBER
4183	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/532,588	WRAY ET AL.	
	Examiner	Art Unit	
	OTIS L. THOMPSON, JR	4183	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 April 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *25 April 2005* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *04/25/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Art Unit: 4183

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a) because they fail to show a legend describing the labels on the Figures 1-3 as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

(a) TITLE OF THE INVENTION.
(b) CROSS-REFERENCE TO RELATED APPLICATIONS.
(c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
(d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
(e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
(f) BACKGROUND OF THE INVENTION.
    (1) Field of the Invention.
    (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
(g) BRIEF SUMMARY OF THE INVENTION.
(h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
(i) DETAILED DESCRIPTION OF THE INVENTION.
(j) CLAIM OR CLAIMS (commencing on a separate sheet).
(k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
(l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the

reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claim 1 is provisionally rejected on the ground of nonstatutory double patenting over claim 4 of copending Application No. 10/532593. This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, as follows: transmitting a burst of trial data from a first node in a first local area network through the connecting network to a second node in a second local area network, reflecting the burst of trial data received at the second node back to the first node, receiving the reflected burst of trial data at the first node through the connecting network, and comparing the reflected burst of trial data to the transmitted burst of trial data to determine whether transmission of a continuous stream of data can be initiated from the first node in the first local area network to the second node in the second local area network.

Art Unit: 4183

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-3, 11, 19, 21, and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Szabo ("Performance Evaluation of a New End-to-end-Measurement Based Call Admission Control Scheme for Supporting IP Telephony"; ISBN: 1-56555-240-7; Orlando, Florida, July 15-19, 2001 – XP009020891, pages 498-505).

7. **Regarding claim 1,** Szabo discloses a call admission control method through a network shown in figure 2 on page 500. The figure shows a calling party **(first node)** connected to a first access network **(first local area network)**, an IP core network **(connecting network)** which is accessed through IP telephony gateways, and a second access network **(second local area network)** to which the called party **(second node)** is connected. The base of the new call admission control method is that the gateways collect aggregate statistics (e.g. packet loss ratio) about all ongoing calls and regularly share this information with the peer gateway **(transmitting, reflecting, and receiving steps)**. When a new call arrives at the gateway, it compares the latest available statistics with the target value set for the telephony calls, and accepts the call if the performance indicators representing the quality of the transmission path towards the gateway are above the preset threshold **(comparing step - Claims 1)** (Page 499, left-hand column, lines 35-44).

8. **Regarding claim 2,** Szabo discloses that a connection setup message travels through the access network of the calling part and arrives at the first IP telephony. The gateway derives the address of the remote gateway from the address of the called party received in the connection setup message. From there the setup message is forwarded to the remote gateway based on the loss value (See Figure 2 and Page 500, left-hand column, lines 24-33).

9. **Regarding claims 3 and 11,** Szabo discloses a summary of actions involved in the call admission control as shown in figure 1. The receiving gateway receives an IP packet (setup message) encapsulating a voice frame **(trial data is the same size as the packets to be transmitted in the continuous stream of data)** (See Figure 1 and Page 499, right-hand column, lines 15-17).

10. **Regarding claim 19,** Szabo discloses, referring to figure 1, that the sending gateway checks the frame sequence number to calculate the number of packets that have been lost since the previous successfully received packet of the call, and updates the corresponding packet loss counter. At the end of each measurement period the receiving gateway sends a control packet to each sending gateway to inform the senders about the loss statistics of their calls (Page 499, right-hand column, lines 22-29).

11. **Regarding claim 21,** Szabo discloses that if the loss value is below the threshold the new call is accepted and the connection establishment message is forwarded to the remote gateway (Step 3 of Figure 2a) (Page 500, left-hand column, lines 30-33).

12. **Regarding claim 23,** Szabo discloses that if the loss value is above the threshold (not acceptable), the new call is rejected (Step 3 of Figure 2b) (Page 500, left-hand column, lines 33-34).

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

14. Claims 4 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Szabo ("Performance Evaluation of a New End-to-end-Measurement Based Call Admission Control Scheme for Supporting IP Telephony"; ISBN: 1-56555-240-7; Orlando, Florida, July 15-19, 2001 – XP009020891, pages 498-505) as applied to claims 3 and 11 respectively above, and further in view of Zaencker (US 2002/0118648 A1).

15. **Regarding claims 4 and 12,** Szabo discloses the claimed invention above but fails to disclose that **the burst of trial data is transmitted at the same data rate as the packets to be transmitted.**

However, Zaencker discloses a method for testing the transmission quality of a bidirectional speech transmission or multicast connection over an IP network between a first VoIP endpoint and a second VoIP endpoint. Zaencker discloses that in order to accurately determine speech quality, testing must be performed in a quasi-continuous fashion; virtually in real time (i.e. transmission rates and time intervals during testing must match with real time values) (Page 3, see all of paragraph 49).

The advantage of this invention is that the method is simple and requires no complicated, computationally intensive algorithms (Page 3, left-hand column, paragraph 50, see "An advantage...").

Therefore, it would have been obvious to one of ordinary skill in the art at the time the applicants' invention was made to incorporate the teachings of Zaencker into Szabo in order to simply and accurately determine speech quality.

16. Claims 5, 6, 13, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Szabo ("Performance Evaluation of a New End-to-end-Measurement Based Call Admission Control Scheme for Supporting IP Telephony"; ISBN: 1-56555-240-7; Orlando, Florida, July 15-19, 2001 – XP009020891, pages 498-505) as applied to claims 3 and 11 respectively above, and further in view of Elek et al. ("Admission Control Based on End-to-End Measurements"; IEEE, Volume 2, 26-30 March 2000 Page(s):623-630 vol.2).

17. **Regarding claim 5 and 13,** Szabo discloses the claimed invention above but fails to specifically disclose that **the burst of trial data is transmitted at a higher data rate than the packets to be transmitted.**

However, Elek et al. discloses an admission control procedure in which a sender issues a probe (stream of packets, all of same length, sent at constant inter-arrival times) at a rate that is equal to the maximal bit rate (Page 624, right-hand column, lines 43-46). If the calculated probe loss probability is below a threshold, the sender may start the CLS session. During the session, the receiver continues to measure losses and sends periodic feedback to the sender for tuning of the error-control code. The sender may at any time

reduce the value of the established bit rate **(probe, or trial data, has been transmitted at a bit rate higher than the packets to be transmitted)** or close the connection (Page 625, left-hand column, lines 5-20). The benefit of the method proposed in Elek et al. is that the scheme avoids network congestion and high packet losses even over short time scales (Abstract).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the applicants' invention was made to incorporate the teachings of Elek et al. into Szabo in order to avoid network congestion and high packet losses.

18. **Regarding claims 6 and 14,** Szabo in view of Elek et al. discloses in reference to figure 1, that the sending gateway checks the frame sequence number to calculate the number of packets that have been lost since the previous successfully received packet of the call, and updates the corresponding packet loss counter. At the end of each measurement period the receiving gateway sends a control packet to each sending gateway to inform the senders about the loss statistics of their calls (Szabo, Page 499, right-hand column, lines 22-29).

19. Claims 7, 8, 10, 15, 16, 18, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Szabo ("Performance Evaluation of a New End-to-end-Measurement Based Call Admission Control Scheme for Supporting IP Telephony"; ISBN: 1-56555-240-7; Orlando, Florida, July 15-19, 2001 – XP0090208891, pages 498-505) in view of Elek et al. ("Admission Control Based on End-to-End Measurements"; IEEE, Volume 2, 26-30 March 2000 Page(s):623-630 vol.2) as applied to claims 6, 14, and 19 respectively above, and further in view of Zaencker (US 2002/0118648 A1).

20. Regarding claims **7, 15, and 20,** Szabo in view of Elek et al. discloses the claimed invention above but fails to specifically disclose that **multiple bursts of trial data are transmitted to improve the estimate.**

However, Zaencker discloses a method for testing a transmission system and for quality of a speech transmission in which a measuring interval of at least 5 seconds (preferably 10 to 30 seconds) is defined for determination of the speech quality. The transmission rate is 10 Mbit/s, and during a measuring interval of 10 seconds, approximately 635 bidirectional RTP packets **(multiple bursts of trial data)** are transmitted. This quality determination process therefore supplies results in a quasi-continuous fashion **(improves the estimate)**, virtually in real time (Page 3, see all of paragraph 49).

The advantage of this invention is that the method is simple and requires no complicated, computationally intensive algorithms (Page 3, left-hand column, paragraph 50, see "An advantage...").

Therefore, it would have been obvious to one of ordinary skill in the art at the time the applicants' invention was made to incorporate the teachings of Zaencker into the system of Szabo in view of Elek et al. in order to simply and accurately determine speech quality.

21. Regarding claims **8 and 16,** Szabo in view of Elek et al., and further in view of Zaencker discloses that if the loss value is below the threshold **(acceptable loss rate)** the new call is accepted and the connection establishment message is forwarded to the remote gateway (Szabo, Step 3 of Figure 2a) (Szabo, Page 500, left-hand column, lines 30-33).

22. Regarding claims 10 and 18, Szabo in view of Elek et al., and further in view of Zaencker discloses that if the loss value is above the threshold (not acceptable), the new call is rejected (Szabo, Step 3 of Figure 2b) (Szabo, Page 500, left-hand column, lines 33-34).

23. Claims 9 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Szabo ("Performance Evaluation of a New End-to-end-Measurement Based Call Admission Control Scheme for Supporting IP Telephony"; ISBN: 1-56555-240-7; Orlando, Florida, July 15-19, 2001 – XP009020891, pages 498-505) in view of Elek et al. ("Admission Control Based on End-to-End Measurements"; IEEE, Volume 2, 26-30 March 2000 Page(s):623-630 vol.2) in further view of Zaencker (US 2002/0118648 A1) as applied to claims 8 and 16 respectively above, and further in view of Smith et al. (US 6,452,905 B1).

24. Regarding claims 9 and 17, Szabo in view of Elek et al. in further view of Zaencker, discloses the claimed invention above but fails to specifically disclose the changing of the priority of the transmission of a continuous stream of data.

However, Smith et al. discloses a broadband switching system in which switches have a connection admission control function (CAC) for controlling traffic entering a network. Smith et al. further discloses that the switches also include a usage parameter control device for dynamically altering the priority of data cells received at the input port of the network from the end-system (Column 5, lines 19-26). This method allows the CAC, along with the dynamic band controller (DBC), to allocate sufficient bandwidth in

the switching system to allow the respective message size to be transmitted within the respective maximum transmission time (Abstract).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the applicants' invention was made to incorporate the teachings of Smith et al. into the system of Szabo in view of Elek et al. in further view of Zaencker in order to allocate sufficient bandwidth in a switching system.

25. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Szabo ("Performance Evaluation of a New End-to-end-Measurement Based Call Admission Control Scheme for Supporting IP Telephony"; ISBN: 1-56555-240-7; Orlando, Florida, July 15-19, 2001 – XP009020891, pages 498-505) as applied to claim 21 above, and further in view of Smith et al. (US 6,452,905 B1).

26. **Regarding claim 22,** Szabo discloses the claimed invention above but fails to specifically disclose **the changing of the priority of the transmission of a continuous stream of data.**

However, Smith et al. discloses a broadband switching system in which switches have a connection admission control function (CAC) for controlling traffic entering a network. Smith et al. further discloses that the switches also include a usage parameter control device for dynamically altering the priority of data cells received at the input port of the network from the end-system (Column 5, lines 19-26). This method allows the CAC, along with the dynamic band controller (DBC), to allocate sufficient bandwidth in the switching system to allow the respective message size to be transmitted within the respective maximum transmission time (Abstract).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the applicants' invention was made to incorporate the teachings of Smith et al. into Szabo in order to allocate sufficient bandwidth in a switching system.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to OTIS L. THOMPSON, JR whose telephone number is (571)270-1953. The examiner can normally be reached on Monday to Thursday 7:30 am to 5:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Len Tran can be reached on (571)272-1184. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Otis L Thompson, Jr./
Examiner, Art Unit 4183

Art Unit: 4183

February 1, 2008

/Len Tran/
Supervisory Patent Examiner, Art Unit 4183